



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,490	03/07/2002	Jae Shin Yu	HI-0073	9470

34610 7590 11/03/2004

FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

ROSWELL, MICHAEL

ART UNIT PAPER NUMBER

2173

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,490

Applicant(s)

YU ET AL.

Examiner

Michael Roswell

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) *
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20030409.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: extracting text regions from a news video stream.

Claim 6 recites the limitation "the unit of article" in the third line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 6-8, 10-13, and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by Hirai et al (US Patent 6,526,215), hereinafter Hirai.

Regarding claim 1, Hirai teaches an apparatus for editing moving pictures involving video feeds similar to news video streams. Hirai teaches identifying text regions extracted from a news video stream containing a plurality of articles, taught as the extraction of frames from a video stream, at col. 8, lines 24-39. Furthermore, Hirai teaches allocating different weight to regions based upon identification, shown at col. 20, lines 1-15, as setting an importance or weight value on information relating to a captured frame. Hirai also teaches generating a synthetic key frame by synthesizing regions into a key frame, if the region has an importance measure of at least a certain value, taught as the importance rating of captured frames and their subsequent display in a synthesized frame, at col. 21, lines 17-34.

Regarding claim 6, Hirai teaches the generation of key frames in units taken from a video stream, at col. 8, lines 24-39.

Regarding claims 7 and 8, Hirai teaches the selective allocation of importance values of various regions as the user sees fit, at col. 20, lines 1-15.

Regarding claim 10, it is inherent that weight determined by a weight determining factor be in proportion to that weight determining factor.

Regarding claim 11, Hirai teaches the selective allocation of importance values of various regions, which are then ranked in order of importance, at col. 20, lines 1-15.

Regarding claim 12, Hirai teaches determining the number and size of a region according to the size of a browser, taught as the generation of frame numbers and picture size reduction according to the size of a GUI environment, at col. 8, lines 35-44.

Regarding claim 13, Hirai teaches identifying text regions extracted from a news video stream containing a plurality of articles, taught as the extraction of frames from a video stream, at col. 8, lines 24-39. Furthermore, Hirai teaches the selective allocation of importance values of various regions, which are then ranked in order of importance, at col. 20, lines 1-15. The regions are synthesized into a key frame, taught as the selection and synthesis of various M-icons based on importance values and search conditions, at col. 16, lines 56-67.

Regarding claim 17, Hirai teaches the selective allocation of importance values of various regions as the user sees fit, at col. 20, lines 1-15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2173

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 9, 14-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai and Yeo et al (US Patent 5,821,945), hereinafter Yeo.

Regarding claims 2-5 and 14-16, Hirai teaches Hirai teaches an apparatus for editing moving pictures involving video feeds similar to news video streams, that extracts and adds weight to key frames.

Hirai fails to explicitly teach extracting icon text regions, general text regions, regions from anchor shots and episode shots, and frames comprising an icon text region and at least one general text region.

Yeo teaches the extraction of key frames from news video streams similar to the key frame extraction of Hirai. Furthermore, Yeo teaches extracting key frames from anchor shots or episode shots, which are well known in the art to include icon text regions and general text region, at col. 2, lines 3-32.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Hirai and Yeo before him at the time the invention was made to modify the video key frame extraction of Hirai with the anchor and episode frame extraction of Yeo in order to obtain a key frame extraction and synthesis method wherein frames are taken from news streams containing icon text regions, general text regions, regions from anchor shots and episode shots, and frames comprising an icon text region and at least one general text region.

One would be motivated to make such a combination due to the fact that both inventions deal with key frame extraction from video streams.

Regarding claims 9 and 18, the ordering of files based on size or time are well known in the art. Furthermore, Yeo teaches the temporal ordering of shots, at col. 5-6, lines 65-1. Hirai teaches image recognition techniques for segments of an image, which would include the size of text in a frame, at col. 16, lines 61-67.

Conclusion

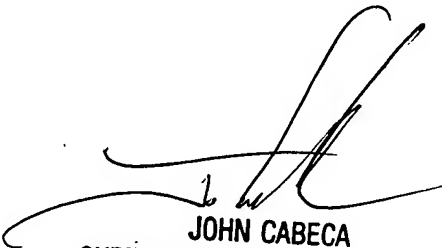
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art relates to key frame synthesis and the state of the art in general.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Roswell whose telephone number is (571) 272-4055. The examiner can normally be reached on 8:30 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Roswell
10/28/04



JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100